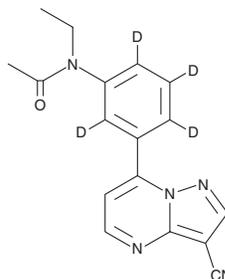


# PRODUCT INFORMATION



## Zaleplon-d<sub>4</sub> Item No. 18620

**CAS Registry No.:** 1781887-91-9  
**Formal Name:** N-[3-(3-cyanopyrazolo[1,5-a]pyrimidin-7-yl)phenyl-d<sub>4</sub>]-N-ethylacetamide  
**Synonym:** CL 284,846  
**MF:** C<sub>17</sub>H<sub>11</sub>D<sub>4</sub>N<sub>5</sub>O  
**FW:** 309.4  
**Purity:** ≥98%  
**Supplied as:** A neat solid  
**Storage:** -20°C  
**Stability:** ≥1 year



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Description

Zaleplon-d<sub>4</sub> (Item No. 18620) is intended for use as an internal standard for the quantification of zaleplon (Item No. 11577) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Zaleplon is a pyrazolopyrimidine that selectively activates the GABA<sub>A</sub> α<sub>1</sub> receptor subunit (EC<sub>50</sub> = 1.1 μM), producing a sedative effect.<sup>1-3</sup> It is characterized as being an ultra-short-acting sedative due to short T<sub>max</sub> (0.7-1.4 hours) and half-life (1 hour) values.<sup>2</sup> This product is intended for research and forensic applications.

This product is qualified as a Reference Material that has been manufactured and tested to ISO/IEC 17025 and ISO 17034 international standards.

### References

1. Petroski, R.E., Pomeroy, J.E., Das, R., *et al.* Indiplon is a high-affinity positive allosteric modulator with selectivity for α<sub>1</sub> subunit-containing GABA<sub>A</sub> receptors. *J. Pharmacol. Exp. Ther.* **317**(1), 369-377 (2006).
2. Gunja, N. The clinical and forensic toxicology of Z-drugs. *J. Med. Toxicol.* **9**, 155-162 (2013).
3. Nutt, D.J., Stahl, S.M. Searching for perfect sleep: The continuing evolution of GABA<sub>A</sub> receptor modulators as hypnotics. *J. Psychopharmacol.* **24**(11), 1601-1612 (2010).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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